

S A F E T Y

E

Two Sections - Section One



The NATIONAL SAFETY COUNCIL, the heart of the safety movement in America, collects and distributes information about accidents and methods for their prevention. Organized on a nonprofit basis, the Council promotes safety in industry, traffic, school, home and on the farm.

**SAFETY EDUCATION** is the official publication of the School and College Division of the Council.

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# S A F E T Y

Volume  
XXXII  
No. 8  
Section  
One

# E d u c a t i o n

• • A MAGAZINE FOR TEACHERS AND ADMINISTRATORS



**CHARLES W. TAYLOR**, Editor  
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# Over My Shoulder



When I read, as I did recently, of a Chicago boy who was fatally burned in a chemistry laboratory explosion, I am very grateful that I was lucky enough, during my teaching experience, never to have been responsible for a similar accident. It is in hope that some teacher of chemistry, thumbing through these pages, will happen to see the picture display on Safety in the HOT Laboratory, and by this display be motivated to take the simpler precautions to make his laboratory safe, that the pictures are printed.

My own curiosity about the forms taken by the energy released by atomic fission was somewhat dampened by an article in a recent issue of *Science*, the weekly publication of the American Association for the Advancement of Science. Last November four atomic explosions were set off in Nevada. Monitoring stations in the New England states were recording, a month later, fifty milliroentgens of radiation a week. This is about one-sixth of the amount of radiation which is considered to be the maximum safe dosage for humans—about one-thousandth of the amount which will result in immediate death.

Almost one out of each sixteen nonschool jurisdiction accidents occurring to students, according to reports to the National Safety Council for the 1951-52 school year, involved bicycles. Two and four-tenths percent were motor vehicle-bicycle accidents, three and seven-tenths percent "other bicycle." Told, in this issue of *SAFETY EDUCATION*, is what some communities are doing in enforcement, education, and engineering to reduce the toll.

Perfectionists, probably, would never be satisfied until every private, public and parochial school in the nation reports, on the *Standard Student Accident Report and Summary Form*,

each accident occurring to school-age children. The *Standard Student Accident Report Committee* is responsible for the explanation of the benefits which the non-reporting school may achieve by joining those systems which, last year, reported the experience of 1,621,000 pupils. How comforting it would be to a school administrator, it seems to me, to be able to tell his community that the accident experience on the playgrounds of its schools was as low—or lower—than the national average.

And speaking of playground accidents—Edward R. Dye, head of the industrial division of the Cornell Aeronautical Laboratory at Cornell University, in an article on page eight, tells what qualities there must be in a material which will protect youngsters' heads from impact injuries they might receive were they to fall from playground apparatus.

Whatever your accident experience is—and you want to improve it—you can get an expert appraisal of your over-all safety education program by entering the *National School Safety Honor Roll program*. In addition, you get the cachet of the *National Safety Council* if your school is undertaking a program designed to meet your community's needs.

Interested in driver education? Then don't fail to read the papers written by Herbert J. Stack, Center for Safety Education, and Gordon C. Graham, veteran safety supervisor of the Detroit public schools.

*Charles W. Taylor*



This off-the-street driving facility makes it possible for one instructor to teach twelve pupils driving twelve automobiles. Six may be seen.

## Detroit Teaches Pupils Behind-the-wheel for \$10

by GORDON C. GRAHAM

**B**EHIND-THE-WHEEL INSTRUCTION for every high school senior at a cost of ten dollars a pupil is the achievable objective of Detroit's multiple car plan of instruction in driver education.

The two very desirable objectives are worth restatement:

Every pupil, not just a selected few, can receive behind-the-wheel instruction.

Cost of the instruction is about ten dollars a pupil, instead of the average of more than thirty dollars which is the cost for the usual dual-control car plan.

Key to Detroit's plan of complete instruction in driver education for every pupil lies in the

construction of an off-the-street practice driving facility. Four are currently in operation, one at Denby high school, another at Southwestern high, a third at MacKenzie high and the fourth at Pershing high.

On each of these off-the-street driving areas, twelve standard automobiles are driven. In each car is one pupil—on his own except for the advice given him by the driver education instructors who tour the area in a dual-control station wagon equipped with a public address system.

The area is approximately two hundred feet

GORDON C. GRAHAM is supervisor of safety education for the Detroit public schools.

Safety Education for April, 1953



wide, five hundred feet long. It is constructed to simulate street driving conditions. There are signalized intersections, stop street, a backing lane, a slight hill, and spaces in between for figure-eight steering exercises and parking stalls.

Let us follow a hypothetical pupil through the training. Six learners get into the dual-control station wagon with the instructor. One by one they are shown the primary steps taken in starting and stopping. As soon as they have demonstrated their ability to perform the task under the eye of the instructor, they "solo" in one of the twelve standard automobiles.

After the first few lessons, all pupils are operating cars alone following a pre-determined traffic pattern that is adjusted in its complexity to meet the advancing skills of the pupil.

For instance, while the pupils are learning the fundamentals of how to start, stop and steer, all of the twelve cars on the practice area move in the same direction. There is no passing of one car by another.

As they master successive instructional steps, they are taken in groups of six in the station wagon for coaching on the next maneuver. From time to time the instructor will ride as a passenger with individual pupils to prevent them from forming incorrect habits.

Eventually, pupils are introduced to all such exercises as parking, backing, starting on grades, until a normal traffic pattern is achieved. At one school, to get even more normalcy, we are endeavoring to provide two periods of on-the-street instruction at the conclusion of the course on the driving facility. This is to permit pupils to have direct experience in regular traffic.

There is a challenge connected with solo operation to which the students seem to rise. Deprived of the crutch of an instructor in a dual-control car they meet and accept full responsibility for what they do.

The question is frequently asked—what degree of hazard is involved in permitting pupils to operate vehicles on their own at such a relatively early stage in their instruction?

The plan has been in operation since 1943. In ten years' of experience we have not had a single personal-injury accident. Property damage costs are, on the average, no greater than for dual-control cars operating on the street at some of our other schools.

**P**ERHAPS THE MOST SIGNIFICANT advantage of the multiple car plan, from an administrative viewpoint, is the fact that one instructor is able to give twelve student-hours of behind-the-wheel experience for each class-hour of time.

This is in contrast to the one student-hour of behind-the-wheel instruction per class-hour where the more conventional on-the-street, dual-control car plan is used.

For the pupil, the plan offers him twenty class-hours of behind-the-wheel instruction. This is in contrast to the ten hours of practice and thirty hours of observation under the dual-control, on-the-street plan. While we do not contend that this observation time is without value, it is certainly of far less value than actual behind-the-wheel experience.

Off-the-street driving areas can be built at costs of from \$10,000 to \$40,000, including garage facilities, depending upon how elaborate a lay-out is desired. The cost can be rapidly offset by the instructional savings. Used to its limit, the driving area should pay for itself within a period of four to five years.

The area need not be large. Although it is preferable to have it somewhat longer than it is wide, it can be as small as three hundred feet square. In one instance the area was built adjacent to an athletic field and paved over its entire surface to enable it to be used as a parking lot for after-school athletic events.

Areas have also been lighted to permit adult driver education classes to be held at night. There has been a considerable demand for this instruction in Detroit and we now have a long waiting list of prospective enrollees. Currently we give a twenty-class-hour course of instruction to adults for a charge of \$12.50. (Many private schools charge four or five dollars an hour.)

Currently we have four such areas in operation in Detroit and additional areas are contemplated. (At four of our high schools we are still using dual-control, on-the-street methods of instruction.) Our off-street areas have a total capacity of 2,150 pupils per year for daytime classes and 1,830 in the evening school program.

**F**ROM OUR EXPERIENCE we find these following advantages:

1. Costs are lowered because one instructor can teach more pupils. Each class of twelve comes to the facility for one class-hour a day and it is succeeded by another group. Five hundred and fifty pupils can be taught in one year by one instructor teaching six periods a day. The theoretical limit is seven hundred and twenty using one station wagon and twelve cars. We have found that twelve is probably the maximum number of cars for efficient operation. A larger number would require giving three or more demonstrations in the station wagon. For adults, we

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# The National Safety Council

HEREBY ENROLLS

## YOUR SCHOOL

ON THE  
NATIONAL SCHOOL SAFETY

### *Honor Roll*

**E**VEN IF YOUR SCHOOL has not yet been entered in the 1953 National School Safety Honor Roll program, there is still time. Final date for the submission of corroborative material concerning your school's program of safety education is May 31.

This National Safety Council program for recognizing exceptional effort in safety education has been judged to be such a valuable contribution to the saving of children's lives that, for the first time, participation is open to every elementary and secondary school—public, private or parochial—in the nation. All colleges for teacher education which have exerted exceptional effort in the field of safety education are eligible for honor roll recognition.

For elementary and secondary schools, entry procedures are neither difficult nor involved. Emphasis is placed on what the school has been doing, rather than on the form of its report.

Schools participating for the first time and schools which have not participated for more than three years need only specify, from a checklist of twenty-four activities, that they have conducted a sufficient number of the activities to constitute a "well-rounded program which serves the local community needs." The National Safety Council does not attempt to outline a program which the school must follow. The first three years are considered to be a trial period during which the school can

prepare to meet the standards which have been established as a condition for continued listing.

Recognition beyond the third year indicates that the school is maintaining and developing an increasingly effective program of safety education. Standards become increasingly higher as the school continues to participate after the third year.

To be listed on the National School Safety Honor Roll, your school must have its safety program recommended to the National Safety Council by a local committee of four: the school principal, the president of the local parent-teacher association or a responsible member of some other parent group, a student, and a civic leader.

This is the first year during which colleges have been able to participate in the eight-year-old program which previously has been limited to elementary and secondary schools.

For the first three years of participation in the program the National Safety Council does not attempt to outline a specific program which a college must follow.

A testimonial committee of nine persons, which includes an executive of the school, a student, other faculty representatives, and a representative of an official community safety agency such as a fire department chief, should recommend to the National Safety Council that the school merits listing (to page 28)

Safety Education for April, 1953

# The National Accident Fatality Toll for 1952

THERE WAS NO INCREASE in the number of five to fourteen year olds killed in accidents in 1952, compared with 1951, despite an estimated increase of four percent in the population of the group.

This is according to the Condensed 1953 Edition of ACCIDENT FACTS, the statistical publication of the National Safety Council.

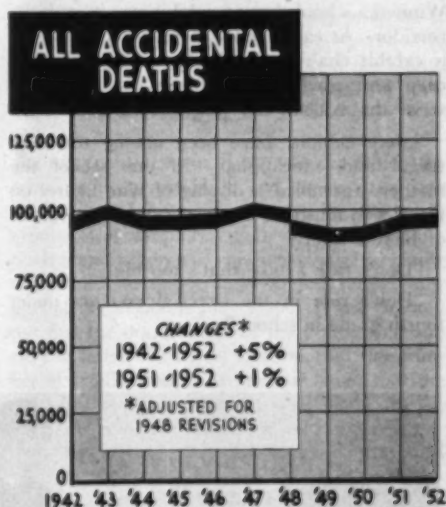
The 1952 accident death toll for all age groups was one percent greater in 1952 than in 1951. Approximately 96,000 persons were killed in accidents in the United States last year. Accidental injuries for the year numbered about 9,700,000 of which 350,000 resulted in some degree of permanent impairment.

The 1952 estimated all accident death totals by age group, and changes from 1951, based on the Sixth Revision of the International Statistical Classification of Causes of Death, follow:

Age	1952	1951	Change
0 to 4	8,700	8,400	+4%
5 to 14	5,900	5,900	0
15 to 24	13,000	12,700	+2%
25 to 44	22,600	22,300	+1%
45 to 64	20,300	19,800	+3%
65 and over	25,500	25,900	-2%

The accident death rate per 100,000 population for children under five was about fifty-one; for children five to fourteen years old, twenty-one; for fifteen to twenty-four years old, fifty-nine; for twenty-five

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	1952	1951	Change
ALL ACCIDENTS	96,000	95,000	+1%
Motor-vehicle	38,000	37,300	+2%
Public non-motor-vehicle	16,000	15,000	+7%
Home	29,500	29,000	+2%
Occupational	15,000	16,000	-6%

Note: The motor-vehicle totals include some deaths also included in the occupational and home totals. This duplication amounted to about 2,500 deaths in 1952. All figures are National Safety Council estimates.

# Exhibits Help Teach Children Safe Habits

by JAMES W. MANN

**C**HILDREN LOVE EXHIBITS if they are colorful, attractive, and different. Each of the Winnetka schools has an exhibit case in its front corridor. At each school there is a parent who is exhibit chairman and who works with children and teachers to arrange displays which serve the educational purposes of the school.

Safety exhibits have been among the most useful and educational. In one school the mothers assembled a display of wire figures on bicycles to illustrate the most common problems of bicycle safety.

"Don't ride a bike that's too big."

"Don't ride in the street if you are under fourth grade in school."

"Do ride in Indian file, not side by side."

"Do walk your bike across intersections."

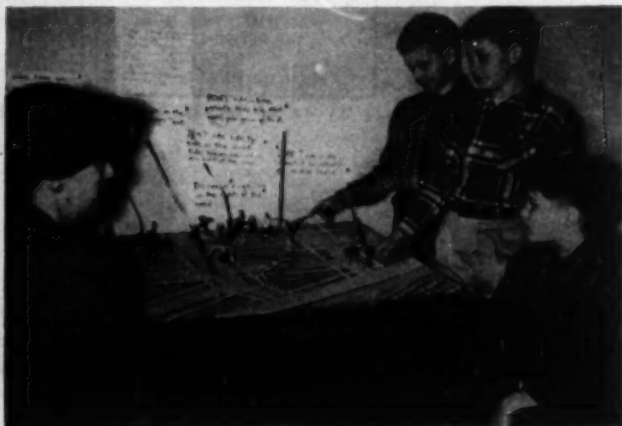
"Don't do tricks—not even 'Look! No hands!'"

"Don't ride two on a bike—either in front or in back."

Attached to each figure, shown riding in the street or on the walk, was a paper ribbon leading to the appropriate concept printed on a card. As a variation, the placards were removed and a scoring game was played in which children listed the "rights" and the "wrongs." This exhibit was circulated to all the elementary schools.

A committee of mothers

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At Hubbard Woods school, where James W. Mann is principal, parents assist in the preparation of exhibits to teach safe bicycle habits.



# Teaching Must Produce Real Change in Behavior

by OLIVE EWAN

**T**O BE EFFECTIVE, the school's safety program must be directed toward producing real changes in the behavior of its students. The safety habits, attitudes, and understandings which the program strives to develop must really function in the lives of boys and girls—really govern their behavior.

The problem of maintaining a safety program in the school which can meet such a strict measure of its effectiveness is a continuous one. The possibility of achieving such a program is increased when teachers come together to discuss and to share the technics and procedures which they have found successful in teaching safety.

Just such a discussion and sharing of technics and procedures occurred at a meeting of the child, school and recreation section of the Greater Cincinnati Safety Council Congress. A panel of five elementary school teachers participated. The schools from which the teachers were drawn ranged from one, located in a suburban community, with a pupil enrollment of six hundred and fifty, to a large one, situated in a densely populated area, with an enrollment of eighteen hundred pupils.

The panel agreed that the schools have three major responsibilities in establishing an effective program of safety education.

- To develop and maintain a school and classroom environment which is safe and wholesome.

- To provide instruction which develops the

habits, attitudes and understandings appropriate to safe living.

- To interpret the school's safety program to parents and thus secure parental cooperation in helping pupils develop and maintain the habits, attitudes, and understandings essential for their safety and well-being.

**I**N DISCUSSING SOME of the ways in which the school tries to establish and maintain a safe environment, the need to organize the playground was emphasized by one participant. Such organization was considered vital to giving each child an opportunity to use safely some part of the available play space. It was pointed out that the organization of the playground will vary in terms of its size, location, and the number of pupils using it at any one time; that the organization adopted must seek to overcome problems peculiar to the use of the particular play area. For safety in play at school, the panel concluded that most schools find it necessary to organize their playgrounds but it also found that flexibility in the organizational pattern is imperative.

Fire drills, the school safety patrol, the school's plan to provide for safe use of bicycles, and good housekeeping in classroom living also came in for major emphasis at this point in the discussion. In addition, attention was directed to the important role which a school safety council can perform in keeping pupils, teachers, and other community personnel continuously appraised of the safety situation in the school and community.



# Protecting the Head from Impact Injuries

Children die from skull fractures and brain concussions. Others, who do not die, develop personality disturbances as a result of brain injuries. What are the specifications—the characteristics—of a material which, used beneath playground apparatus, will prevent or minimize the hazards of head injuries to children who fall?

When SAFETY EDUCATION began to look for someone who could answer the question, the consensus of the persons who were consulted was "Ask Edward R. Dye at Cornell."

Mr. Dye began his study of the physical factors responsible for impact injuries to the skull and brain at the request of the United States Navy. Before he could begin to draw up specifications for protective materials, Mr. Dye had to discover the precise "how" of skull and brain damage and just how much in-built protection there is in a human head.

For a while human skulls were literally bounced off of a multiplicity of surfaces—tested to destruction. Then, when the human bones

became scarce, the laboratory developed a synthetic head with the same elastic and fracture characteristics as the human one.

The laboratory's findings for the United States Navy resulted in the saving of many lives. Then a sporting goods manufacturer asked the laboratory and Mr. Dye to develop some protective equipment. Later the New York state boxing commission asked him for a boxing-ring floor that would protect boxers from head injuries.

It is from this background of experience that Mr. Dye wrote, for publication in SAFETY EDUCATION, this paper on Protection of the Human Head from Blows Delivered by a Flat Surface. It discusses the mechanical causes of head injuries and the qualities of a surface which will minimize impact injuries.

The paper was read by Dr. F. T. Jung, director of the physical laboratory of the American Medical Association council on physical medicine, whose comment is printed in *italics* near the pertinent statements.—*The Editor*

by EDWARD R. DYE  
Chief of the Industrial Division  
Cornell Aeronautical Laboratory  
Cornell University

**T**HE ADULT HUMAN HEAD weighs about ten pounds. Structurally, it can be described as a hard, somewhat elastic shell—the skull—surrounding a semi fluid—the brain. When the head receives a hard blow, two things can happen—the skull can be fractured, or the brain can be injured by transmission of the

force through the skull into the brain to cause a concussion.

Medical doctors do not consider a simple fracture of the skull, by itself, to be a serious injury. However, if the fracture is compound, the pressure of the skull parts on the brain can be quite serious.

(I should consider any skull fracture serious. A compound fracture is one in which the skin is broken so that the possibility of infection is added to the intrinsic damage from the break in the bone; but infection is not the most serious factor in skull fractures.)

The brain can receive damage by direct pressure transmitted through the skull or by the cavitation which occurs after the pressure wave travels through it. Also, the brain can receive damage by coming into contact with bone projections inside the skull when the head is given a high rotational acceleration by a blow applied in such a manner as to give a torsional effect to the head.

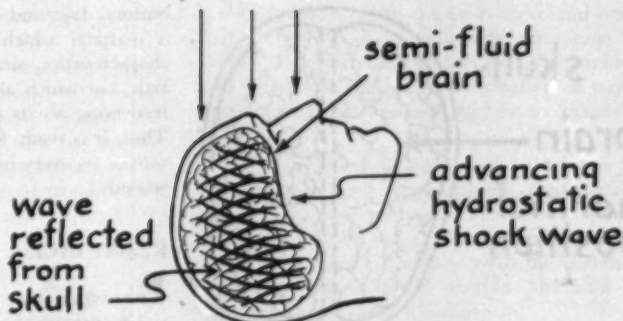
In our engineering studies at the Cornell Aeronautical Laboratory, Inc., we have found that the human head can be dropped about sixty inches onto a hard, unyielding surface such as Portland cement, concrete or steel, before fracture of the skull occurs. The critical height varies somewhat with the age, sex and race of the individual. We say then that the head can receive a blow of approximately six hundred inch pounds—sixty inches multiplied by ten pounds—before fracture occurs. After consultation with medical authorities and review of the literature on the subject, we have settled on a figure of approximately four hundred inch pounds blow on a hard unyielding surface as the threshold of brain damage.

When the head is suddenly stopped by a blow against a hard surface, two forces occur on the skull. One is the force from the exterior blow and the other is the hydrostatic pressure built up by the brain inside the skull.

(The hydrostatic pressure is a brief surge. Some readers might suppose that somehow the blow resulted in a sustained increase of hydrostatic pressure inside the head.)

In our study of padding materials for protecting the human head against impact blows, we found that the materials which performed the best were the materials having:

- Low density, i.e., low weight per cubic foot.
- High energy absorbing characteristics.
- A resistance to deformation which required about thirty pounds per square inch to deform



If the head stops moving suddenly, as at the end of a fall, the brain may be damaged by a hydrostatic shock wave.

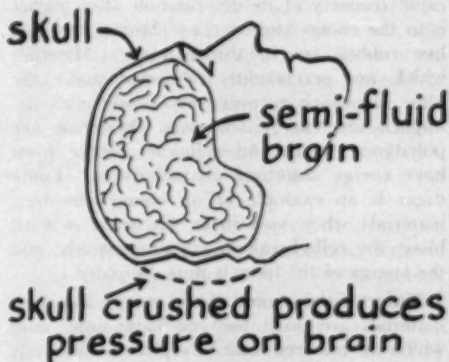
the material to three quarters of its original thickness. (This type of material seemed to allow a sufficient dent to be formed to allow the forces to be distributed over a sufficiently large area of the head before the decelerating force reached a critically high level.)

- Enough thickness to allow satisfactory distribution of pressure before "bottoming."

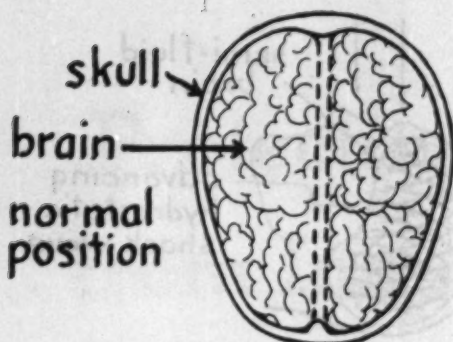
Let us discuss these four controls to safe padding materials one by one.

#### DENSITY

**W**HEN THE HEAD STRIKES a contact surface it must very rapidly accelerate that part of the material with which it makes initial contact. This material offers an inertia resistance proportional to its mass, causing a high concentration of force at the contact point. The skull, of course, is deformed slightly by the initial contact force. It recovers some of this deformation as the material, at the point where contact occurred, accelerates to the mean velocity of



A puncture with hemorrhage, or pressure may result from a fracture.



Normally, the brain conforms to the skull outline.

the skull. This initial action of the blow involving force and time we call "initial impulse." Materials of high density have high initial impulses. When the initial impulse reaches a magnitude of some five pound seconds, head injury can occur even though the peak force which arrives later in the action is lower than that acceptable to the head.

Materials such as polystyrene foam, cellulose acetate foam, sponge rubbers—each with a density of less than seven and one-half pounds per square foot—and the like are on the safe end of the density scale. Materials such as Portland cement, bituminous concrete, steel, and hard packed clay are on the other end of the safety scale as controlled by density.

## ENERGY ABSORBING CHARACTERISTICS

**T**HE SECOND CONTROL to a safe padding material is its energy absorbing value. We classify materials as either energy storing or energy absorbing. Any material which has complete rapid recovery of its deformation after impact is in the energy storing class. Spring steel and live rubber are in this category. Materials which are permanently deformed under the blow, or which recover very slowly after the impact, are energy absorbers. Materials like polystyrene foam and cellulose acetate foam have energy absorbing characteristics. (Lump sugar is an example of an energy absorbing material; when you strike the sugar a hard blow, the cells break down, progressively, and the energy of the blow is thus dissipated.)

Unfortunately, most of the energy absorbing materials are good for one blow only, after which the material must be replaced. (Recently there has been developed through the combined efforts of the Cornell Aeronautical Lab-

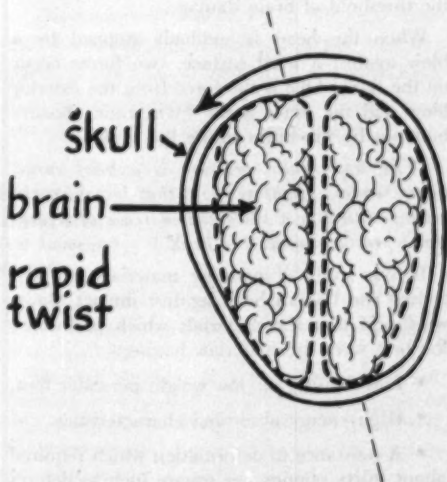
oratory, Inc. and the U. S. Rubber Company, a material which has high energy absorbing characteristics, similar to the frangible materials, but which also has the property of slowly recovering to its original shape after a blow. Thus, it is ready for a repeat performance. Its rate of recovery is in the order of two or three seconds.)

## RESISTANCE

**E**VERYONE WILL AGREE THAT the ideal material to protect the head against impact damage would be one which would have a very low resistance, provided a thickness could be used to prevent the head from "bottoming" under the impact blow. Thus, fourteen feet of soft river-bottom mud would give excellent impact protection as controlled by resistance. The problem has been to bring the padding material up to a resistance acceptable as a surface upon which to walk or play. The high resistance limit is one where the combination of the distribution of the force and the magnitude of the force can be accepted without injury.

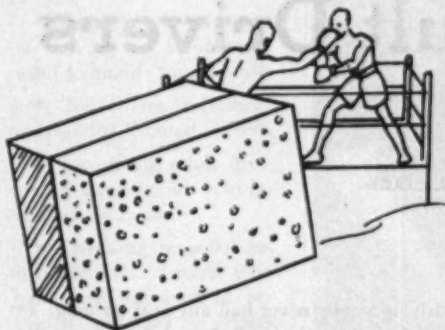
Recently our laboratory developed for the New York State Athletic Commission a boxing platform designed to have the safest possible characteristics. During its development we found that the adult human could be thrown back or dropped to the floor during a boxing match with an impact blow to the head of approximately one thousand inch pounds—much higher than the threshold of brain injury

The many protuberances on the inside of the skull may damage the brain in rapid rotation.



if the boxing platform were not properly padded.

Impact blows to the head, of course, occur in a very short period of time. The entire pressure-time phenomena occur within one two-hundredths of a second. To intelligently study the action, measuring equipment must be used which can follow this rapid performance. Electronic instrumentation is used extensively in this type of study.



A floor with the proper characteristics increases the protection by a factor of four or more.

A ring platform was developed which has a head protection value some four or five times as great as that provided by padding normally used on ring platforms. This was achieved with no change to the feel under foot. By using measuring instruments which could follow the rapid increase in force during the impact period, we were able to choose materials which have a low rate of change of force, as well as low peak force. Rate-of change of force, we believe, is a measure of potential injury to the



An unyielding surface concentrates both rate of change and peak force. A cushion lessens them.

brain. Peak force is the measure of potential energy to the skull.

## THICKNESS

**T**HICKNESS IS A CONTROL which must be considered, together with resistance of the material. The softer the material, the greater the thickness that must be used for a given velocity of head impact. Since the radius of a head with

the diameter of seven inches is three and one-half inches, no great additional advantage is gained in pressure distribution by using a material which will require a deformation of more than three and one-half inches to make it bottom.

A rough field check procedure used by us to test the New York State Athletic Commission boxing ring platform installations is to press, with 160 pounds force, a three and one-half inch radius spherical surface onto the padding material. The spherical surface produced a dent having a two inch radius.

To summarize our rough specifications of a material to protect the human head against impact blows, as based on our research to date, we would say that the material used for padding a platform against which a head might strike should have:

- Low density, preferably under 10 pounds per cubic foot.
- A resistance to compression sufficient that thirty or forty pounds pressure per square inch is required to deform the material to three quarters of its original thickness.
- Sufficient thickness to prevent a ten pound head form from bottoming when it is dropped the same height from which the head might fall.
- A very low rate of recovery; that is, after the head strikes the material one should be able to see the dent.
- The rate of change of acceleration should be low, preferably under 5,000 "g's" per second per second.
- The peak force should be less than fifty times the weight of the head.

Of course, this discussion can be considered only as an outline of a method of selecting materials for the protection of the human head—a rule of thumb, so to speak. For each special case of head protection, we know of no better method than to subject the material to exacting laboratory testing procedures so that one can be sure that the best possible combination for the service is obtained.

Editor's note: The material developed jointly by the Cornell Aeronautical Laboratory, Inc., and the United States Rubber Company is trademarked Ensolite. Another material for which somewhat similar characteristics are claimed has been developed by Southern Chemicals, Inc., and is trademarked Parafall.



# CAN Improve Skills Even of Adult Drivers

by HERBERT J. STACK

**U**SUALLY, WHEN SOMETHING IS said about driver training for adults, someone comes up with the old saw, "You can't teach an old dog new tricks." All of which is sheer nonsense—as if adult drivers were "old dogs" and good driving practices "new tricks!" The fact is, adult drivers **can** improve their skills; bad habits **can** be replaced by good ones.

Many drivers want to improve their driving, but the average community has never taken the time or the trouble to provide adequate programs and facilities. Newspapers and the radio are constantly bemoaning the tragic costs of accidents, constantly condemning weaknesses in enforcement, in traffic engineering, and in court procedures. But the chief source of trouble is the fact that a large proportion of our

driving public never had any real training. Instead, they "picked up" their skills and practices from relatives or friends and never had what could be called competent instruction. Ironically, a man will expect to spend several years of training and practice before he is licensed as an electrician, plumber, or engineer, but appears to be satisfied in just "picking up" a motor vehicle operator's license. Many of our drivers are poorly informed about good driving practices, and weak in their attitudes toward other drivers and pedestrians.

This is true of the large number of so called average drivers—as studies of the Center for Safety Education have shown again and again.

HERBERT J. STACK is director of the Center for Safety Education, New York University.



Adult drivers who have a record of unsafe habits attend a school on instruction from the court. Teachers are employees of the Los Angeles City Board of Education.



—and all the more true of the smaller groups of accident repeaters and chronic violators who have been tested in clinics operating in four states.

Thus, considerable importance should be attached to the work of agencies concerned with the following:

- Teaching the elements of driving to adults who want to qualify for a license.
- Providing "refresher" courses for licensed drivers.
- Instructing adult drivers of commercial vehicles and school busses.
- Providing remedial instruction for drivers who have been involved in repeated accidents or violations.

No one agency is set up to handle all of these training activities. For illustration, it is the responsibility of the public and private secondary schools to train younger drivers and at the same time to see that school bus drivers are properly trained. High school teachers can also give instruction in adult evening school programs, but there is a danger of assuming that an instructor can teach all day in a high school and, in addition, carry on an extensive evening training program. That is burning the candle on both ends.

**WHAT ARE SOME OF the other agencies that can be called upon to train adult drivers?**

**Commercial Driving Schools.** These schools are sometimes criticized because a few of the poorer ones do a very slipshod job. But they enroll nearly a million drivers each year and could have a very beneficial effect. A few states, such as New York, New Jersey, Pennsylvania, and the District of Columbia, have been trying to raise the standards of these schools. Other states do not even know how many such schools they actually have.

**Training for Commercial Vehicle Drivers.** It is a curious fact, but in the average city, if a man wanted to learn to drive a truck or a bus, he would have difficulty in finding a place for such training, unless he secured a job working

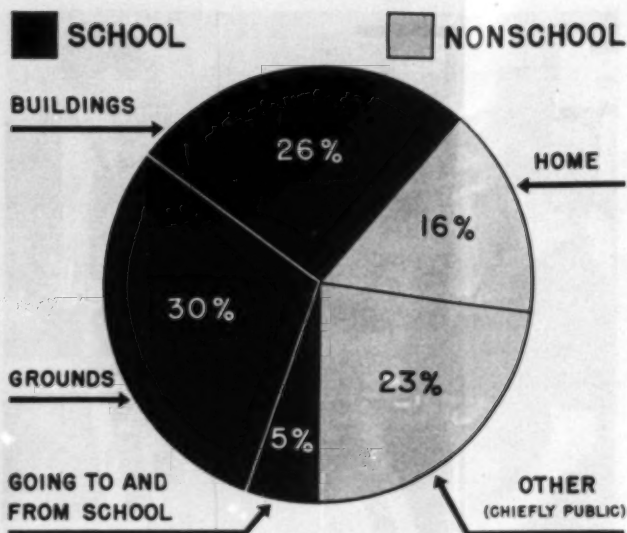


Tools, used in the regular classroom work in high school driver education, are used to teach adults.

for a transportation company and got his training on the job. A few colleges are, like North Carolina State and Michigan State, have set up programs for commercial vehicle drivers.

**Short "Refresher" Courses.** In a number of cities, short refresher courses are being offered under the direction of the local safety council. New York City, for example, has provided several of these courses with good attendance; the Springfield, Massachusetts, Safety Council has run a special "refresher" course for women drivers; and three others have been held in New Jersey under the auspices of insurance underwriters' associations. Incidentally, the National Association of Insurance Agents has developed a program that is called the "Eight-Hour Refresher Course."

**Traffic Court Schools.** These schools are operated by traffic courts and are primarily for chronic violators. They are located mostly in the western states. Successful schools have also been conducted in Baltimore, Phoenix, Miami, Clearwater, Florida, and Louisville, Kentucky. Los Angeles is operating schools for traffic violators which are taught by instructors assigned from the school district. This is known as the Driver Improvement (to page 40)



Figures from all reporting schools are accumulated to prepare a statistical picture of the accident problem of school age children. This typical example is from ACCIDENT FACTS, a National Safety Council publication.

● Source: School systems reporting to National Safety Council

## Schools Benefit by Using Standard Accident Report

by STANDARD STUDENT ACCIDENT REPORT COMMITTEE  
National Safety Council  
Thelma Reed, Chairman

**D**ATA ON THE UNSAFE acts and unsafe conditions causing accidental injuries and deaths to students are essential to the initial planning, efficient implementation, and later evaluation of an effective school safety program.

Detailed reports, gathered by educational authorities, on injuries to students

- Suggest curriculum adjustments to meet immediate student needs;
- Provide significant data for individual student guidance;
- Insure that time spent on gathering student injury data produces original injury reports and summaries of maximum value to educators;

(It has been found that accident reports pre-

pared primarily for police departments, insurance carriers, and other nonschool agencies frequently are very useful yet often fail to provide specific details significant to educators endeavoring to improve safety instructional materials, maintenance procedures, and other aspects of the school safety program.)

- Suggest modifications in the structure, use, and maintenance of buildings, grounds and equipment;
- Bulwark school administrators' appeals for community support of the school safety program;
- Aid the administration in guiding the school safety activities of individual patrons and patrons' groups;

(continued on page 16)

**Part A. Information on ALL Accidents**

Printed in U.S.A. Rep. 100M-12-60-WHIP

15

- Aid in protecting the school from unfortunate publicity and from liability suits growing out of student injury cases.

**O**N WHAT STUDENT INJURIES should data be collected?

It is recommended that reportable accidents be defined to include

(1) All injuries to students sufficiently serious to require a doctor's care.

(2) All injuries that keep a student out of school for one-half day or more regardless of where the student was when he was injured—on school property, enroute to or from school, or elsewhere.

(3) All injuries, however slight, to students while they are under the jurisdiction of the school.

(Unless otherwise defined by statute, administrative ruling, or court action, students are considered to be under school jurisdiction when on school property and when on the way to and from school.)

**W**HAT DETERMINES THE effectiveness of student accident reporting?

The major factors determining the effectiveness and value of student accident reporting are:

- The collection of individual injury reports on a system-wide basis.

System-wide reporting helps maintain uniformity, making possible the preparation of complete analyses of the student injury situation, showing grade and seasonal experience, types of injuries, circumstances and actions resulting in injuries, and other characteristics of the problem.

The need for system-wide reporting is emphasized. Except in the most rare case, the number of reportable injuries occurring in any one school during any one school month or school year is too small to provide significant data on the nature and extent of the student injury problem.

- The cooperation of all faculty members responsible for filing original injury reports.

Too much stress cannot be placed on the importance of the prompt filing of complete and accurate injury reports. Generally speaking, the teacher in charge of the student, when he was injured, is responsible for making the report or for seeing that it is made.

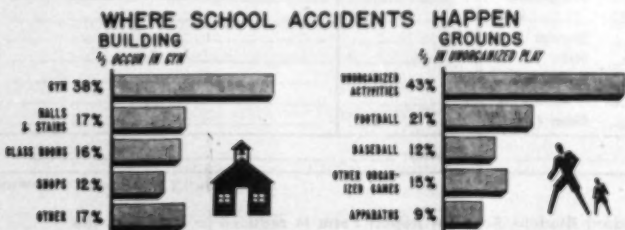
- The development of specific plans for the use of student injury data.

The expenditure of time on the collection of student injury data is justified only when the collected data are used in program improvement. Some of the more important uses of these data are summarized above.

Naturally, methods of using pupil-injury data vary greatly in detail from one school system to another. Copies of all reports should be examined by the superintendent or his delegated representative. In systems where the positions exist, the persons holding the following positions should examine such reports also: safety education supervisor or coordinator, chief of medical staff, research director and curriculum director.

In addition, selected injury reports should be examined by the individuals in charge of the appropriate departments or activities. The physical education director, for example, should examine the reports of all injuries which happened to students while they were engaged in physical education, intramural sports or athletics. The director of industrial or vocational education should see all reports of injuries occurring in the school shops. The business manager or director of maintenance should see reports of injuries due to the condition of buildings or grounds.

Tabulations of all injury reports should be prepared at regular intervals, preferably monthly but at least once each semester. These general summaries will serve as guides to changing conditions and problems in a way that the individual reports cannot serve. From time to time long range analyses should be made of selected



In 1949, when this bar graph was prepared, Standard Student Accident Report summaries covered 785,000 pupils. Last year the report summaries included the accident experience of 1,621,000 pupils.

Source: Reports for 1948-1949 from school systems with 785,000 students



## Injury rates by location and grade level\*

Grade	All injury rate	School building	School grounds	Going to or from school	Home	Other
All grades . . . . .	15.2	4.0	4.5	0.8	2.5	3.4
Kindergarten through 3rd grade	10.5	1.6	3.5	0.8	2.7	1.9
Fourth through 6th grade . . . . .	14.8	2.5	5.2	0.8	2.8	3.5
Seventh through 9th grade . . . . .	21.3	7.6	5.3	0.9	2.7	4.8
Senior high school	21.7	8.0	6.7	0.5	1.7	4.8

\*Rate is the number of accidents per 100,000 student days.

This table of injury rates classified by location and grade level is a typical example of the use which is made of the figures sent in by reporting school system. The table appeared in ACCIDENT FACTS.

specific problems such as bicycle accidents to pupils of all grades, all types of injuries to all pupils in a single grade, etc.

School administrators are urged to adopt the Standard Student Accident Report and Summary Forms recommended by the National Safety Council. Copies of the forms are available on request to the council.

It is emphasized that, while the recommended forms are printed and distributed by the council, they are not, in an important sense, *council produced*. The current editions of the forms have been evolved, during a period of nearly twenty-five years, under the guidance of the council's Standard Student Accident Report Committee which is composed of school administrators, safety education supervisors, teachers and other interested school personnel. The committee has been staffed by the School and College Division of the National Safety Council and, continuously, has had the assistance of the council's Statistical Division.

Obviously it is impossible to make more than a rough estimate of the amount of time necessary to make effective use of the recommended report forms. The number of students on which injury reports are collected, the willingness of teachers, and others, to file all necessary reports, the extent and method of using individual reports and summaries—these and other factors determine the amount of time involved.

Where reports are made in accordance with the suggested definitions of reportable accidents, the number of reports filed during an academic year runs to about seven per hundred enrolled students in some school systems. In other systems, fewer than seven per hundred are filed; in still others, more than that. These variations appear to be due to the degree of effort made

to obtain reports on all proposed classifications of pupil injuries, also on the application of the term "however slight" with respect to school jurisdiction accidents.

If student accident reporting is to make its maximum contribution to the school safety program, it merits as much time as is required to obtain complete reports and to make full use of them. Relatively little value can be derived from incomplete reporting or failing to make use of the reports.

Standard Student Accident Report Forms are available from the National Safety Council. These consist of the original report form and a summary form. Also available is a guide—Student Accident Records and Analysis—for those persons responsible for the preparation of periodic summaries and special studies. The guide is available, on request, to the persons initiating the use of the standard report forms and to those desiring suggestions for the expansion or improvement of a reporting system already in operation.

The National Safety Council provides, without charge, a sufficient quantity of all materials to cover anticipated needs for the first year of reporting. For subsequent years, local school systems may reprint the Standard Student Accident Report Form or purchase copies from the council. Within certain limitations, the council will continue to supply copies of the Student Accident Summary Form, without charge, to meet customary reporting procedures.

**L**IMITATION ON PROVISION of free supplies of forms.

The above offer of free supplies is restricted to school systems contribut- (to page 27)



# Bicycle Court's Worth Proven By Experience

by W. RUSSELL HICKS

**F**ROM LITTLE ACORNS GREAT OAKS DO GROW is an adage which the citizens of Hamilton, Ohio, not only accept but also act upon. On January 1, 1948, they instituted a traffic court exclusively for bicycle riders under eighteen. The first objective was to curb the rising and alarming number of bicycle accidents which had been occurring on the streets of Hamilton, but the long-range objective was to educate reckless bicycle riders so they would become alert and safety-conscious adult traffic users.

With more than five years of experience behind us, we can say that the first objective has been achieved—bicycle accidents have been reduced by as much as two-thirds.

The court is conducted by Hi-Y members according to standard legal procedures. It has the whole-hearted support and cooperation of the Butler County Juvenile Court, the Hamilton police department, the Hamilton schools, the Hamilton Chamber of Commerce, the Hamilton Young Men's Christian Association, and above all the respect and cooperation of parents.

Since the court functions as a friend of, and under the jurisdiction of, the Butler County Juvenile Court, which has jurisdiction over all persons under eighteen, our bicycle traffic court has legal standing. (to page 22)

W. RUSSELL HICKS is director of the Hamilton, Ohio, Safety Council.

## BICYCLE COURT SUMMONS

POLICE DEPARTMENT,  
HAMILTON, OHIO

No 2724

Name.....Age.....

Address.....

You are hereby commanded to appear in Bicycle Court at....., at 9:30 A. M. on

Saturday....., for the violation noted below. Bring your bicycle with you. Failure to appear will cause your case to be referred to Juvenile Court.

Date..... Make of Bicycle.....

Place.....Time.....M.

License.....Violation No.....(see below)

By Order of Chief of Police

By Officer.....

### VIOLATIONS

1. Failure to obtain license.
2. Violating Traffic light signal.
3. Violating stop sign ordinance.
4. No warning device.
5. Clinging to a moving vehicle.
6. Failure to yield right-of-way.
7. Riding on wrong side of street.
8. Riding two or more abreast.
9. Riding at night without lights or reflector.
10. Riding on sidewalk in business district.
11. Riding with more than one person on bicycle.
12. Riding with articles in arms.
13. Unsafe mechanical condition.
14. Failure to have required equipment.
15. Improper riding.
- 16.

TO PARENTS: We are endeavoring to protect your boy or girl from injury and death in traffic accidents. We will appreciate your full co-operation and help in assisting us in our efforts.

JOHN A. BIPPUS,  
Chief of Police.

Safety Education for April, 1953

# The Safe Bicycle and The Safe Rider



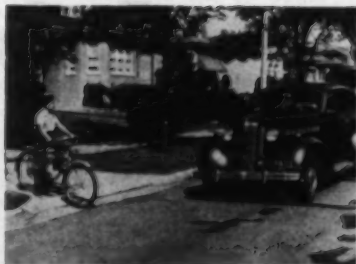
←  
The Bike has head  
light for vision.



→  
The Boy watches  
where he rides.



←  
The Bike has an  
efficient brake.



→  
The Boy stops be-  
fore entering the  
street.



←  
The Bike has a re-  
flector for persons  
behind.



→  
The Boy signals  
his intent for per-  
sons behind.

*Pictures from the National Safety Council film strip, Safety on Two Wheels.*



Photomicroscopy, in which the light path is fourteen feet long, is used to search for structural changes in "hot" metals. All the operations are handled by remote control.



High school pupils find it difficult to weigh accurately when they touch the balance controls. Here a technician is feet from the Gram-Matic balance he is using.



A person who is indenting focusing

# Safety in the Hot Laboratory



The photograph piece of fuel material was inserted in a Radiation was re

At the Westinghouse laboratory, where the six smaller photographs were taken, the men building an atomic power plant use a variant of the Argonne manipulator.



The pupil now in the high school chemistry laboratory soon may be testing the properties of radioactive metals as is this man who is measuring resistance to impact.

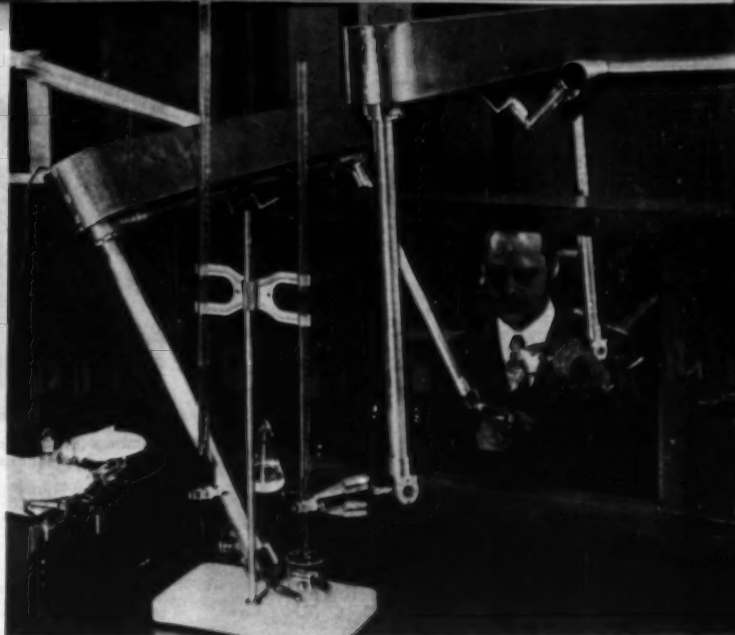


A million-dow of a container trial lab





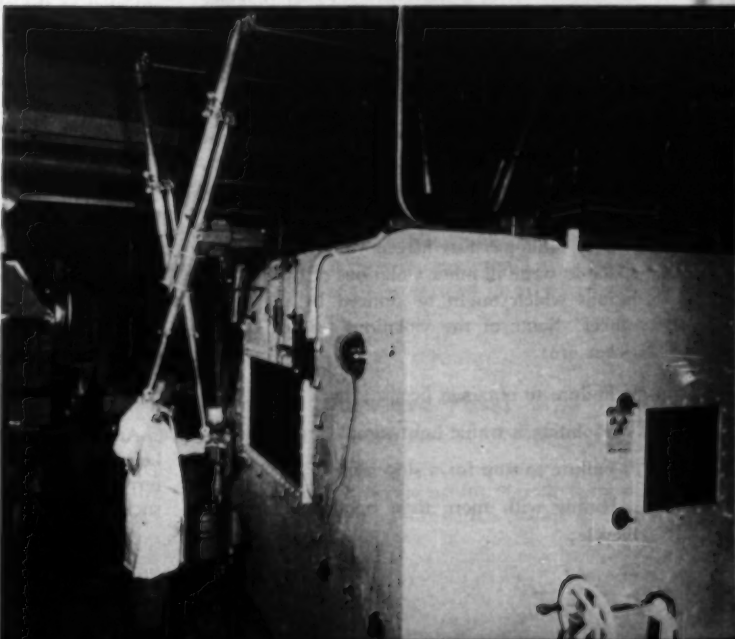
scope is used by this technician measuring, with a microscope, an tion. All the operations, including r, are remotely controlled.



Since the inception of that first atomic pile beneath the stadium at Stagg Field, University of Chicago, there have been only two fatalities charged to accidental exposure to radiation. Above is Raymond C. Goertz, Argonne National Laboratory, at the controls of the first master-slave manipulator, his own invention, which enables chemists to handle radioactive materials without exposure to radiation hazards. Below, a metallurgist at Argonne is using an improved manipulator. Special glass, containing cerium oxide to inhibit radiation blackening, three feet of a solution of potassium bromide, then three feet of water comprise the window through which he watches his work.

above show the same erial: on the left, before it reactor; on the right, after. sponsible for the change.

g machine, seen through this win- special glass and oil, is opening ner for radioactive metal. Indus- ratories need safety-minded men.



## Bicycle Court

(from page 18)

Gordon Pickens, then boys' director at the Hamilton Y.M.C.A., and R. Brandon Marshall, then director of the Hamilton Safety Council, decided to use Hi-Y members as court personnel for two reasons:

Contemporaries of the bicycle riders brought into the court would have a greater influence on offenders than would adults; and,

Hi-Y members would receive valuable training, not only in court procedures but also in traffic safety.

Court personnel consists of a chief judge, two associate judges, a prosecutor, a clerk and a bailiff. We have the two associate judges so that responsibility for determining a sentence will not rest entirely upon one person. Provision was made for a defense attorney in cases where "Not Guilty" pleas were entered but I cannot recall an instance of such a plea.

The original personnel of the court was coached by Paul Baden, prosecuting attorney of Butler county. Other legal officers assisted in establishing procedures. As the personnel of the court "graduated" the members have coached the youngsters who were to take their places. Refresher courses and suggestions on procedures have been offered by the prosecuting attorney and by other members of the bar association.

**P**ERSONS SEEN COMMITTING a traffic violation on a bicycle receive a summons from a police officer. They are told to appear before the bicycle court at a specified time. The summons contains a statement to parents:

"We are endeavoring to protect your boy or girl from injury and death in traffic accidents, and would appreciate your full help and cooperation in assisting us in our efforts."

The summons lists fifteen violations and has space to write in other violations of traffic regulations which might be noticed by the police officer. Some of the violations printed on the ticket are:

Failure to obtain a license;

Violating a traffic light signal;

Failure to stop for a stop sign;

Riding with more than one person on the bicycle;



Members of the Hamilton Y.M.C.A. Hi-Y Club fill the court positions. Proceedings are broadcast.

Failure to yield the right-of-way;

Riding at night without a light or reflectors.

**A** SUMMONS TO THE court is no laughing matter. The basement courtroom in the Municipal Building, where the weekly court sessions are held, becomes a solemn place on Saturday mornings. The judges do not wear the black robes customary costume for the bench, but wear black sweaters bearing the Hi-Y emblem.

**There is no fixing of a ticket.** A youngster who receives a summons must appear before the court.

First-time violators usually are required to write a hundred-word essay on some phase of bicycle traffic safety. Length of the essay is adjusted to the offense and the number of appearances the youngster has made before the court. Other sentences have required the offender to attend two or more sessions of the court. Where the offense is particularly hazardous, or the violator is a repeater, the bicycle is impounded for from two to four weeks by the police department.

**I**F A BICYCLE RIDER receives more than three summonses his case is referred to the Butler County Juvenile Court. The judge then sets a hearing date when the offender, accompanied by his parents, will appear. The possibilities and consequences of traffic accidents to bicycle riders are thoroughly discussed. If the judge deems it advisable, a sentence is imposed.

Any offender who does not want to appear before the bicycle court may have his case transferred to the juvenile court, but, to date, no such request has been entered.

Although the bicycle court keeps its own rec-

Safety Education for April, 1953



ords as to citations and charges, these records are not transferred to the official juvenile court record.

**T**HE BICYCLE COURT WORKS in Hamilton. Bicycle accidents have decreased even though the number of bicycles owned in the city has increased. We have not had a bicycle accident fatality in the past three and one-half years. Last year there were twelve bicycle accidents which resulted in eleven personal injuries, none of which were serious.

The riding habits have shown definite improvement. Although those who first appeared before the bicycle court are just now beginning to drive automobiles, we believe that the safety training learned in bicycle riding will carry over into the operation of their automobiles.

The bicycle court has the support of both the Hamilton *Journal News* and Radio Station WMOH. The radio station broadcasts a half-hour program of court happenings each Saturday morning and the *Journal News* frequently carries articles about the court. Pictures of offenders are never published without permission, of course.

Court officials are the guests of the chief of police at an annual luncheon which is attended by city and county civic leaders.

The court is not our only tool for teaching bicycle safety. A bicycle safety inspection program was begun in 1952. Louis DuBois, safety supervisor at Wilson junior high school, working with the Hamilton Safety Council, trains a team of bicycle inspectors each year at each of the city's schools. The student inspectors check bicycles for brakes, lights, reflectors, bells, pedals, handle bars, grips, position of seat, condition of wheels, spokes, and any other item which may need repair.

When mechanical defects are found, the junior safety council writes to the parent of the bicycle owner asking to have the defect corrected. More than sixty percent of the defects found last year were corrected.

Another team of student inspectors checks the rider on his ability to mount properly, start to ride, ride a straight line, stop, and dismount. When weaknesses are found in the riding ability, a junior safety council member is assigned to train the rider. Areas removed from traffic are assigned for this practice.

Since parents, officials and the public have so favorably accepted the bicycle court, we of the Hamilton Safety Council firmly believe *From Little Acorns Great Oaks Do Grow.*

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## Cleveland Disk Jockey Aids Teen-age Safety



Winning participants in the traffic quiz program conducted by Bill Randle are congratulated by the police director of school safety.

In Cleveland, a disk jockey, popular with the teen age crowd, has teamed up with the police and school people to teach safe driving. Bill Randle, whose disks and talk are heard over WERE, uses a Saturday morning spot to teach safe driving.

Pupils from the driver education classes of the public and parochial schools are guests on Randle's program.

Each week Randle conducts a traffic quiz program. Prizes to the winning pupils are albums and single records. It is planned to present cash awards to the schools whose representatives make the highest cumulative score. The prize money will be used in driver education classes.

### Forward Pass!

(Report of pupil accident, verbatim)

When the children were turning in their books at the end of the health period, Jacqueline was hit in the mouth with a book that was passed too hard.

# Ithaca Schools Like Safe Riding Contests

by RALPH W. JONES

**I**T WAS ABOUT SIX years ago that I realized that the school children of Ithaca, New York, needed some special bicycle safety education. Our problem was probably no more acute than in many other communities but it was complicated enough and getting no better.

What I wanted was something that would put a high value, in the bicycle rider's mind, on the fundamentals of safe and skillful riding, a technic without the usual, uninteresting "don'ts," and one which would not become dull and uninteresting.

There were other criteria which the technic must meet. It must enlist the willing support of the teachers and administrators. It should, most desirably, be a permanent program. It should have appeal to the lay public. The cost, to the school, must be very small or nothing. And above all, it must be attractive to the fourth, fifth and sixth grade pupils.

Because our city of nearly thirty thousand population is built partly on steep hills, which create unusually hazardous traffic situations, the bicycle safety program should have carry-over for the days when the riders would become drivers.

We settled on a safe riding contest.

I can best describe the bicycle safety program which we evolved by a chronological report.

During the first two weeks in April the director of the contest visits each of the forty elementary school rooms which house the fourth,

fifth and sixth graders. There are eight public school buildings, a parochial school and another fairly large elementary school in an adjoining village whose pupils participate in the contest.

Each year—1953 will be our seventh—the purposes of the contest are explained to the pupils. The posters, entry blanks and other pertinent materials are distributed during these visits.

We are especially proud of our entry blank. On a single page are stated the mechanical devices necessarily part of a safe bicycle—good brakes, reflectors, a signaling device; a brief description of the events in the contest; the rules for safe riding; and the correct hand and arm signals for right and left turns and for stops.

At the bottom of the page is the entry form. It states that the parent must go over the information with his child and then sign the form in order for the child to be eligible.

Teachers welcome this. It is just what they need for their annual spring traffic safety education. It helps make their safety programs more dynamic. The safety supervisor gives the teachers plenty of time to work the information into their program and also gives them a wide leeway to do it according to their own plans and technics.

Finally, on this first visit to all the fourth,

RALPH W. JONES is director of safety education for the public schools in Ithaca, New York.

Safety Education for April, 1953

fifth and sixth grade rooms, we exhibit the prizes and trophies which are to be won in the competition. These are donated by our Exchange club, a civic organization.

During the last two weeks in April we have a "special event." Last year a local sporting goods store sent a rider on a fully-equipped bicycle to stage on-the-street demonstrations at each elementary school.

We took about one hundred pupils and their teachers to the busiest corner near the school where the rider demonstrated safe practices.

During the demonstration a police car equipped with a public address system was parked so that the police officer assigned to school safety could explain to the children the reasons for each maneuver the rider made. Demonstrated were the safest ways to pass a parked car, the correct signals and methods of making right and left turns, and the importance of riding close to the right curb.

During this special event period the police do most of the bicycle licensing, which includes an inspection of the bicycle. This is done on the school grounds so that youngsters will not have to ride downtown.

Elimination contests are held at each of the elementary schools during the first two weeks of May. Entrants are asked:

- to mount their bicycles with the least possible amount of wavering and to have the wheel under control in the shortest possible time;

- to ride slowly on a straight line about forty feet long which is marked on the playground;

- to come to a smooth and quick stop at a signal;

- to make a change of direction, as if passing a parked car, using the proper signal;

- to make a right turn;

- to come to a stop street (marked on the playground), make a stop and from the stop make a left turn.

The program is climaxed during the last two weeks in May when one winner from each school competes for a trophy and the title of city champion safe rider.

Our newspaper and radio broadcasting station give the event a considerable amount of publicity, the closing contest is broadcast.

Is the program effective?

Our police records show that it is. There are fewer violations and fewer accidents charged to bicycle riders.

Safety Education for April, 1953

## Used in Brooklyn



Practicing how to back in an automobile without ever leaving the classroom is an experience which this New York high school girl shares with the other members of her class who are using fifteen Aetna Drivetrainers especially prepared for classroom use.

## Using Police to Teach Spurs Student Interest

Chicago public schools find that calling upon police officers to discuss traffic problems which arise in the traffic safety education courses stimulates student interest in the importance of traffic safety, according to James J. Griffin, coordinator of safety for the school system.

Traffic safety education units are integrated into the secondary school curriculum in the general science course, in English V and in civics.

Michael J. Ahern, chief of traffic for the Chicago police department, has a trained group of police who visit the schools to discuss traffic problems and conduct a free discussion period at the conclusion of their talks. Seven hundred and fifty-nine such appearances were made at high schools and junior colleges last year.

## Elementary Lesson Units for 1953-54

**T**HE ELEMENTARY SAFETY LESSON units for the 1953-54 school year are being written, as were those in the current series, by Leslie R. Silvernale, professor of continuing education at Michigan State College. They are in the form of pupil worksheets. They can be used as seat-work requiring a minimum of teacher help on vocabulary.

In the lower elementary units, the vocabulary is on an easy second grade level, except that in some cases the suggested projects for further activities are to be read by the teacher. The pupil directions in many of the units can be read by first grade children. Many of the units can also be used in kindergarten with the teacher reading the simple directions to the children. The third grade will read more meaning into the lessons and get more meaning from them.

The vocabulary in the upper elementary units has been kept to one suitable for fourth grade but will also be interesting to fifth and sixth grade children.

The content of the units is related to seasonal hazards. In September, going to and from school safely is the theme. The campaign put on by local police and safety organizations at this time to make everyone conscious of children in traffic can be exploited to reinforce this lesson.

Fire prevention is the subject covered in October, the month which includes National Fire Prevention Week. Attention is directed to cleaning up rubbish and to checking for fire hazards in and about the home.

Conduct in school, insuring one's own safety and looking out for others, is the theme of the November unit.

Safety in crowds, while shopping, and at large holiday gatherings, as well as specific hazards connected with the Christmas tree, will be stressed in December.

Proper outdoor clothing, cold weather activities, and safe winter outdoor play—such as coasting, skating, snowballing and skiing—are dealt with in January.

In February, the content is concerned with safety in the home. Good housekeeping and safe home practices, and the child's part in them, are emphasized.

In March, attention is centered on the safety of the child on wheels—bicycles, tricycles, roller

### Elementary Lesson Units, 1953-54

September	Content: Going to and from school safely.
October	Content: Fire prevention.
November	Content: School safety.
December	Content: Christmas holiday safety.
January	Content: Winter safety, including play.
February	Content: Home safety, good house-keeping.
March	Content: The child on wheels.
April	Content: Safe places for outdoor play.
May	Content: Vacation safety with special emphasis on travel.

skates and wagons—and rules for wheeled safety on the street and sidewalk.

The subject matter of the April unit covers safe places for outdoor play and the right ways of using outdoor play equipment.

In May, the central idea is keeping safe and happy during the summer months with special emphasis on family vacation trips.

**T**HE LESSON UNITS MAY be used in the language arts period or as social studies. The teacher can make little or much use of the lessons, as she wishes. She can use them as the springboard for very rewarding discussions based on the experiences and needs of her group, or she can use them to motivate units of work in social studies in which all the implications for citizenship training and community responsibility are fully exploited. The suggested class activities are worthwhile even if only brief improvisations are made—or they can be projects taking a week or more of time involving the entire school.

Group introduction of the worksheets and group summarization are essential to the effective teaching of the principles illustrated in the lessons. It is hoped that teachers emphasize the underlying attitudes, for they are the attributes of the good citizen.



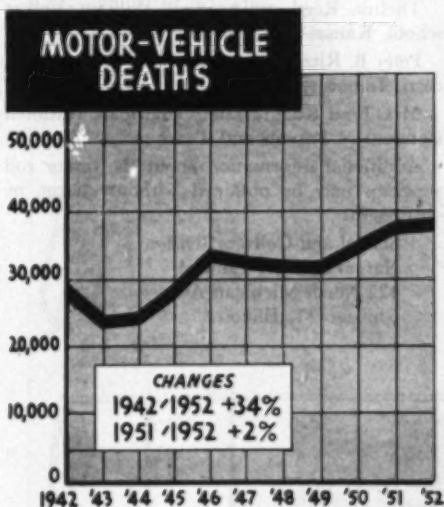
## Fatality Toll

(from page 5)

to forty-four years forty-nine; for forty-five to sixty-four years old, sixty-five; and for sixty-five years old and older, 196.

Since the five years, 1903-07, somewhat greater progress in accident prevention has been made among children than among adults. By 1952 the death rate for children younger than five had dropped forty-six percent and for children five to fourteen years old the drop was fifty percent. In the fifteen to twenty-four year old group the rate decreased thirteen percent.

The accident death rates for the twenty-five to forty-four year age group decreased, in the same period, forty-four percent; for the forty-five to sixty-four age group the decrease was thirty-eight percent; for the sixty-five and over group, seventeen percent.



## Schools Benefit

(from page 17)

ing to the National Safety Council's effort to secure a more complete understanding of the circumstances in which students are involved in accidents. This cooperation takes the form of forwarding to the council copies of summaries of the local record, preferably monthly but at least once each semester.

These summaries are consolidated and then used in *Accident Facts*, the council's annual statistical report. The illustrations accompanying this article are typical. Summaries dealing

with such subjects as high-frequency accident locations, and activities by grades, appear in *SAFETY EDUCATION* from time to time. Data from these summaries are furnished to safety education supervisors, curriculum consultants, authors and speakers, and to other persons desiring information on pupil injuries.

Reports received from individual school systems are not publicized in any way.

Standard Student Accident Report Committee Roster:

Thelma Reed, principal, William Volkner school, Kansas City, Missouri, chairman.

R. L. Barrick, Holmes school, Pittsburgh, Pennsylvania.

Gordon C. Graham, supervisor, safety education department, Detroit, Michigan, public schools.

James J. Griffin, coordinator of safety, Chicago, Illinois, public schools.

Irmagene Nevins Holloway (Mrs.), educational consultant, Greater Cincinnati Safety Council, Cincinnati, Ohio.

Jesse T. Holmes, director, safety education, State Department of Education, Santa Fe, New Mexico.

Charles J. Kraft, Jr., assistant director, health education, Board of Education of the City of New York, Brooklyn, New York.

Ray N. McFarlin, safety education supervisor, Cleveland, Ohio, public schools.

John P. Rostmeyer, executive secretary, Baltimore Safety Council, Baltimore, Maryland.

George P. Silverwood, director of safety, Green Bay, Wisconsin, public schools.

Leon O. Smith, assistant superintendent, Omaha, Nebraska, public schools.

Herbert J. Stack, director, Center for Safety Education, New York University, New York, New York.

Marian Telford, staff representative, National Safety Council, Chicago, Illinois.

Mary May Wyman, supervisor of safety and special education, Louisville, Kentucky, public schools.

Cecil G. Zaun, supervisor of safety, Los Angeles, California, public schools.

Requests for additional information should be addressed to: Standard Student Accident Report Committee, National Safety Council, 425 North Michigan Avenue, Chicago 11, Illinois.

## Exhibits Help Teach

(from page 6) at another elementary school made a very attractive display with wire figures, a la Munro Leaf. "Watch Birds" were examining various unsafe situations and exclaiming over their "foolishness."

At the junior high school, mothers on the safety and exhibits committees worked with the children of the art-shop classes and their teachers to set up a "Home, Safe Home" exhibit pointing up the Christmas season hazards.

Observing the interest and curiosity which children display as they examine exhibits, I am convinced that there is real educational value in teaching exhibits. Our experience indicates certain general principles to be observed in this area:

- We should strive to widen participation in the construction of exhibits to include parents, teachers, children and community agencies.
- Select a minimum of concepts for each exhibit and illustrate these clearly and simply.
- Be sure that exhibits are colorful and childlike.
- Novel approaches have values, but be certain that they are also artistic.
- Consider exhibits as "windows" which create interest and a desire for further exploration of a subject rather than endeavor to make them exhaustive, "preachy," or excessively detailed.

JAMES W. MANN is principal of Hubbard Woods school, Winnetka, Illinois.

## Honor Roll

(from page 4) on the National School Safety Honor Roll.

Minimum standards of safety education have been established for teacher college recognition after three years of participation in the program.

Prior to this year participation in the National School Safety Honor Roll had been restricted to schools using the educational services of the National Safety Council. Upon the recommendation of the participating schools, the School and College Conference of the National Safety Council opened the program to all schools.

Evidence of the real merit of the program may be deduced from the roster of educators and other persons interested in schools who serve as judges for the program. They are:

Forrest E. Long, chairman, department of secondary education, New York University;

Thelma Reed, principal, William Volker school, Kansas City, Missouri;

Peter B. Ritzma, district superintendent, Chicago, Illinois, public schools; and,

Mrs. Fred Knight, safety chairman, National Congress of Parents and Teachers.

Additional information about the honor roll program may be obtained without charge by writing to:

School and College Division  
National Safety Council  
425 North Michigan Ave.,  
Chicago 11, Illinois.



Many facets of safety education may be taught through pupil preparation of bulletin board exhibits. Here lower elementary pupils are putting the finishing touches on a fire prevention bulletin board display.

⊕ Lower  
Elementary

# Safety Lesson Unit

April, 1953

SCHOOL AND COLLEGE DIVISION — NATIONAL SAFETY COUNCIL — CHICAGO 11, ILL.

*Teaching language arts, social studies and safety*

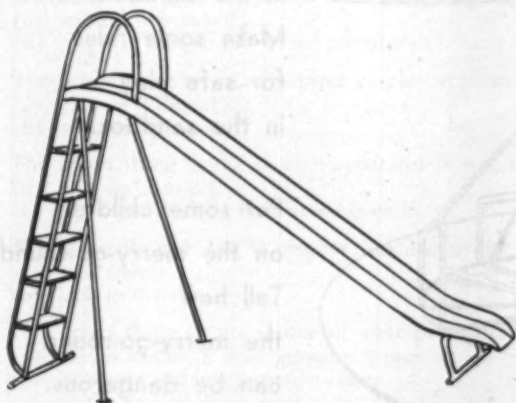
## Safe at Home or Away

### PLAYGROUNDS

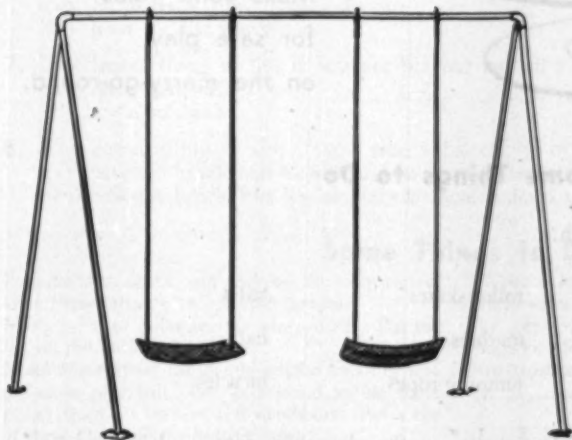


Sketch S9615A

*Trace and*



Put a boy on the slide.  
Have him go down  
the right way.  
Tell why it is right.  
Tell the ways  
a slide can be  
dangerous.



Put a girl on the swing.  
Have her swing  
the right way.  
Tell the ways  
a swing can be  
dangerous.

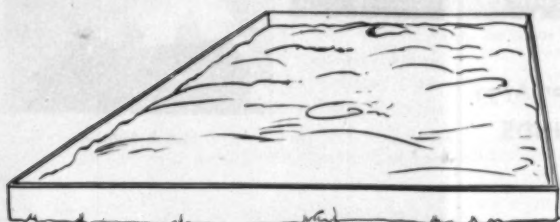
Make up rules  
for playing on or near  
the swings.

Prepared by Leslie R. Silvernale, continuing education service, Michigan State College, East Lansing, Michigan. 1 to 9 copies of this unit, 6 cents each. Lower prices for larger quantities. Printed in U.S.A.

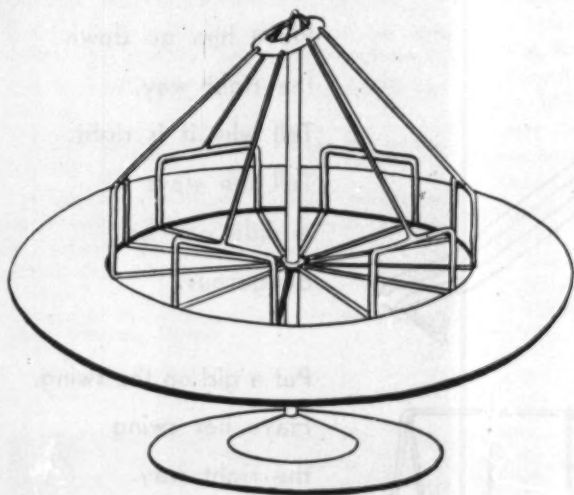


*Trace and*

Put two boys  
on the teeter.  
Have them  
getting off  
the right way.  
Tell how the teeter  
can be dangerous.



Put some children  
in the sandbox.  
Make some rules  
for safe play  
in the sandbox.



Put some children  
on the merry-go-round.  
Tell how  
the merry-go-round  
can be dangerous.  
Make some rules  
for safe play  
on the merry-go-round.

### Some Things to Do

Make rules for safe play with:

tricycles

roller skates

balls

wagons

marbles

bats

scooters

jumping ropes

bicycles

On the playground, show safe ways to use the play equipment.

Tell about safe and unsafe places to play near your home.

# Safety Lesson Unit

SCHOOL AND COLLEGE DIVISION—NATIONAL SAFETY COUNCIL—CHICAGO 11, ILL.

*Teaching language arts, social studies and safety*

## Safe at Home or Away PLAYGROUNDS



Sketch S9615A

*Copy and*

### What Would You Do?

Underline the better things to do.

- The better thing to do, if you see a glass bottle on the playground, is to
  - see that it is picked up.
  - play on the other side of the playground.
- The better thing to do, if a piece of play apparatus breaks, is to
  - play on it carefully.
  - report it at once.
- The better thing to do, if play apparatus is wet, is to
  - wait for it to dry.
  - put on old clothing before playing on it.
- The better thing to do, if you are running on the playground, is to
  - look ahead.
  - look to the side.
- The better thing to do, if one of your playmates is badly hurt, is to
  - tell his mother or other grownup at once.
  - have some children carry him home.
- The better thing to do, if your kite is caught on an electric wire, is to
  - try to reach it by climbing the pole.
  - leave the kite where it is.
- The better thing to do, if you are playing ball in a small area, is to
  - use a hard ball.
  - use a soft ball.
- The better thing to do, if you ride a bicycle, is to
  - have the handle bars high enough so that your body is erect.
  - have the handle bars low so that your head is down.

### Some Things to Do

Prepare talks about safe play on the playground. Give these talks before primary grades.

Make a list of rules for the playground. Put the list on the bulletin board.

Make a survey of the neighborhood locating safe places to play ball. Get permission to use these places from lot owners and neighbors. Put a list of these places on the bulletin board.

Write a letter to your mother and father telling them some of the advantages of using the school or city playground during summer vacation months. Suggest hours of supervision and other information.

Answers: What Would You Do: 1—a; 2—b; 3—a; 4—a; 5—a; 6—b; 7—b; 8—a.

Prepared by Leslie R. Silvernale, continuing education service, Michigan State College, East Lansing, Michigan. 1 to 9 copies of this unit, 6 cents each. Lower prices for larger quantities. Printed in U.S.A.



## Playtime Riddles

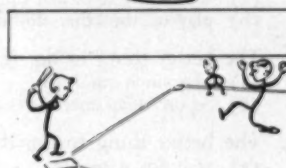
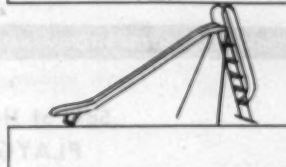
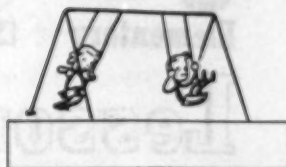
Copy and

Match the sentences with the pictures.

A sentence may be used more than once.

Write sentence numbers under the pictures.

1. We stay a safe distance away when others are using it.
2. We do not climb on the framework.
3. We warn the other person before getting off.
4. We keep them out of our mouths.
5. We keep to the right when using them.
6. We never start until the previous child is out of the way.
7. We take these off before going up or down the stairs.
8. We use it one child at a time.
9. We obey all traffic signals when using this.
10. We remain seated when we use it.
11. We keep our hands away from its sides.
12. We wait until it stops before we get off.
13. We drop the bat after batting; we do not throw it.
14. We watch out for cars backing out of driveways when using these.
15. We always face each other when using this.
16. We choose a safe place for this.
17. We take these off before crossing busy streets.
18. We wait until everyone is holding on tightly before starting.
19. We don't hold on to trucks or street cars when using these.
20. We put these in a safe place after using them.
21. We go feet first when using this.
22. We keep our feet from under the board.



Answers: Swing: 1, 2, 6, 10, 12. Slide: 1, 2, 6, 8, 10, 11, 21. Merry-go-round: 1, 2, 3, 12, 18. Ball diamond: 1, 13, 16. Teeter: 1, 3, 10, 12, 13, 22. Marbles: 4, 16, 20. Bicycle: 1, 3, 9, 8, 9, 14, 15, 16, 19, 20. Roller skates: 5, 7, 9, 14, 16, 17, 19, 20.

# Junior High Safety Lesson Unit

April, 1953

SCHOOL AND COLLEGE DIVISION—NATIONAL SAFETY COUNCIL—CHICAGO 11 116

For use in English, American problems, driver education, guidance and homeroom classes

## Good Training GRADE CROSSINGS



Sketch S9616A

### Your Assignment

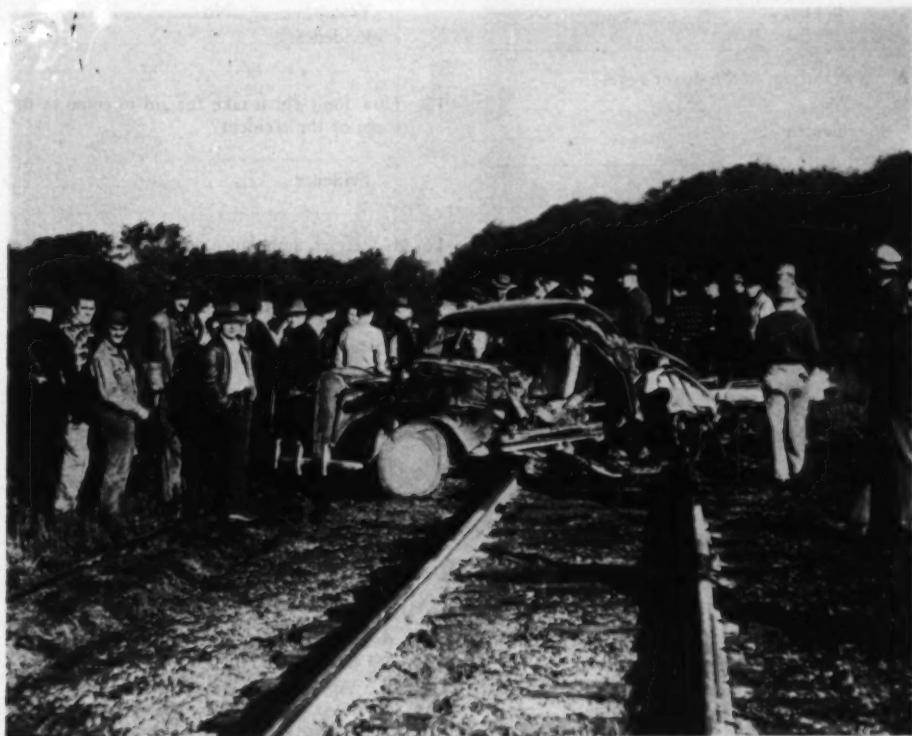
You are a reporter for the *Daily News* and have been sent to cover the accident shown in the picture below. Although you have no more information than may be gleaned from the picture, reconstruct the accident and write the story and the headline. Analyze the stories.

Compare your story with those of other members of the class.

In what respects are the stories alike?

In what respects do they differ?

How can you explain the different interpretations?



—photo courtesy Northwestern University Traffic Institute

Prepared under the direction of Kimball Wiles, chairman, Division of Secondary Education, and Vincent McGuire, assistant professor, College of Education, University of Florida. 1 to 9 copies of this unit, 6 cents each. Lower prices for larger quantities. Printed in the U.S.A.

## WHAT DID YOU SEE IN THE ACCIDENT PICTURE?

*Copy and*

CHECK THE QUESTIONS you think you can answer on evidence in the picture.

1. Was the car hit by a train?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_
2. Was anyone in the car when it was damaged?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_
3. Was anyone hurt?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_
4. Was it a clear day?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_
5. Did the train back away from the wreck?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_
6. Was the sun in the driver's eyes?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_
7. Was the driver tired?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_
8. Did the accident occur in the country?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_
9. Was the driver at fault?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_
10. Was the train travelling at full speed?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_
11. Approximately what time of day is it?  
\_\_\_\_\_ o'clock  
Evidence \_\_\_\_\_
12. What season of the year is it?  
Spring \_\_\_\_\_ Summer \_\_\_\_\_ Fall \_\_\_\_\_ Winter \_\_\_\_\_  
Evidence \_\_\_\_\_
13. Is there only one track?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_
14. Did the R.R. Crossing have a blinker?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_
15. How long did it take for aid to come to the scene of the accident?  
Evidence \_\_\_\_\_
16. Is there an ambulance nearby?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_
17. Are there more than two policemen present?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_

Let the class decide whether there is sufficient evidence for your answers.

## DON'T GET "CROSSED OUT" AT THE CROSSING

WHICH OF THE FOLLOWING would you consider good safety rules? Place a check before each good rule.

1. "Look, Listen and Live" at a railroad crossing.
2. When a train is approaching an intersection, hurry to get across first.
3. A train has just cleared a two-track crossing; be sure no other train is near before you cross.
4. The signals say a train is coming, but you can't see it; cross anyway.
5. You use an intersection many times a day; it is not necessary to observe signs and signals.
6. Never walk on railroad tracks.
7. Begin to slow down when you see the crossbuck.

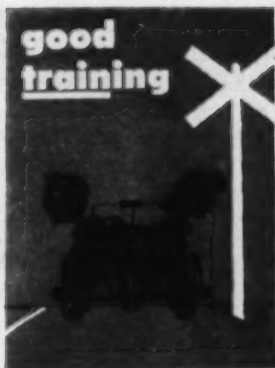
# Senior High Safety Lesson Unit

April, 1953

SCHOOL AND COLLEGE DIVISION—NATIONAL SAFETY COUNCIL—CHICAGO 11, ILL.

*For use in English, American problems, driver education, guidance and homeroom classes*

## Good Training GRADE CROSSINGS



Sketch S9616A

### Your Assignment

During times of emotional stress, different persons interpret the same incident in different ways. You are asked to write the story of the accident shown below from the point of view of one of the following:

A policeman

A reporter

A passenger in the truck

An eyewitness.

Compare the completed stories and see how they differ in emphasis, tone, facts and organization.



—photo courtesy Northwestern University Traffic Institute

Prepared under the direction of Kimball Wiles, chairman, Division of Secondary Education, and Vincent McGuire, assistant professor, College of Education, University of Florida. 1 to 9 copies of this unit, 6 cents each. Lower prices for larger quantities. Printed in the U.S.A.

## WHAT DID YOU SEE IN THE ACCIDENT PICTURE?

*Copy and*

CHECK THE QUESTIONS you think you can answer on evidence in the picture.

1. Did the accident happen within an hour of the time the picture was taken?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_
2. Was it a clear day?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_
3. Was the sun in the driver's eyes?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_
4. Was the driver at fault?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_
5. Did the accident occur in a small town?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_
6. Are there any safety signs present?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_
7. Was anyone hurt?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_
8. Approximately what time is it?  
\_\_\_\_\_ o'clock  
Evidence \_\_\_\_\_
9. Do trains use the track frequently?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_
10. How many policemen are present?  
Evidence \_\_\_\_\_
11. What season of the year is it?  
Spring \_\_\_\_\_ Summer \_\_\_\_\_ Fall \_\_\_\_\_ Winter \_\_\_\_\_  
Evidence \_\_\_\_\_
12. What is the contour of the land where the accident took place?  
Hilly \_\_\_\_\_ Flat \_\_\_\_\_ Valley \_\_\_\_\_  
Evidence \_\_\_\_\_
13. Did the railroad crossing have a signal?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_
14. Has medical aid already arrived at the scene?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_
15. Was the driver tired?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_
16. Could the temperature have caused the windshield to fog up?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_
17. Was the driver travelling at an excessive rate of speed?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Evidence \_\_\_\_\_

Use class discussion to decide if there is sufficient evidence to justify your answers.

## DON'T GET "CROSSED OUT" AT THE CROSSING

WHICH OF THE FOLLOWING would you consider good safety rules? Place a check before each good rule.

1. "Look, Listen and Live" at a railroad crossing.
2. When a train is approaching an intersection, hurry to get across first.
3. A train has just cleared a two-track crossing; be sure no other train is near before you cross.
4. The signals say a train is coming, but you can't see it; cross anyway.
5. You use an intersection many times a day; it is not necessary to observe signs and signals.
6. Never walk on railroad tracks.
7. Begin to slow down when you see the crossbuck.



# RIGHT EQUIPMENT COMMANDS ATTENTION

Make your school safer by outfitting safety patrolmen with our excellent equipment. Here are just a few of our items.

## AVAILABLE FOR IMMEDIATE DELIVERY

Raincoats and Belts  
Safety Patrol Belts  
Felt Arm Bands  
Safety Buttons  
Badges  
Overshoes

And the Corporal Digby Safety Sentinel



WHITE RAINCOATS made of 100% American Rubber. Also available in yellow or black. Highly visible.



### CAPS

Snappy eight-point style gabardine cap may be had in Navy Blue. Other colors on special request.



### SAFETY PATROL BELT

The very popular adjustable school safety patrol belt. Made of two inch and 2 1/2" heavy quality. Web with two-piece nickel rust-proof buckle with prong toggle. Both waist belt and shoulder strap are easily adjustable. The entire belt easily cleaned.



### BADGES

WRITE FOR CATALOG  
TODAY!

# GRAUBARD'S

America's Largest Safety  
Patrol Outfitters

206 Mulberry St., Newark 5, N. J.

Several conclusions may be drawn from the remarks which the members of the panel made on this phase of the topic.

The first is that at least the five elementary schools represented by the panel have certain common problems to be met in developing and maintaining safe school and classroom environments.

Second, their ways of meeting these problems vary because the ways are closely related to the specific hazards which exist in the specific school situations.

Finally, the teachers suggested the necessity of constant alertness to the appearance of new hazards in the school situations in which they work. In other words, they believe that effective action to solve environmental problems in safety has a dynamic quality.

**O**F GREAT SIGNIFICANCE in providing effective safety instruction, according to the panel, was the use of accident reports, a knowledge of the specific safety problems which confront children, the use of activities which the children pursue, and the use of visual aids and community resources.

## for SAFETY PATROL EQUIPMENT

Send for new circular of Sam Browne Belts, Arm Bands, Badges, Safety and School Buttons.

We can furnish the Sam Browne Belts in the following grade—adjustable in size.

The "Bull Dog" Brand Best Grade For Long Wear White Webbing 2" wide at \$15.00 Per Doz. \$1.50 each small lots.



### 3 3/4" ARM BANDS

Celluloid front—metal back. Web strap and buckle attachment.

No. 33 Blue on white JUNIOR SAFETY PATROL.  
No. 44 Green on white.

SAFETY COUNCIL PATROL UNIVERSAL SAFETY  
WITH TITLE PATROLMAN OR CAPTAIN

Per Dozen .....	\$5.00	Lots of 50 .....	28c each
Lots of 25 .....	30c each	Lots of 100 .....	25c each

### SIGNAL FLAGS—12x18 inches

Red cotton bunting, white lettering, "SAFETY PATROL."  
Per dozen .....

Less than dozen .....

Write for our Safety Patrol Circular  
OUR RECORD 53 YEARS  
**AMERICAN BADGE COMPANY**  
129 West Hubbard, corner La Salle, Chicago 10, Ill.

While the panel advocated basing the instruction upon the specific safety problems confronting the learner, the members also thought that the production and use of curriculum guides was essential to really effective safety programs in schools. They pointed out that such guides offset the possibility of leaving safety education to chance learning, give assurance of continuity in learning, and afford protection for the learner against monotonous repetition in learning situations.

**W**ORK ASSIGNMENTS ON curriculum committees and participation in safety workshops and conferences was deemed to be of great value in helping teachers keep abreast of new techniques and materials, in encouraging them to evaluate their programs, and in providing them with opportunities to learn from others.

The panel members told only of the highlights of their experiences in obtaining the help of parents in the operation of the school's safety program. The participant from the primary grades told of her success in having children report to the class the measures which their parents considered important to safety in travel. Another participant described the construction of maps that depict the safest routes to and from school. The maps, together with other information pertinent to safe travel to and from school, were distributed to parents at the beginning of the school year.

The last project reported on involved a school's concern for the safety of its pupils after school. The school had been extremely successful in its efforts to establish a safe program of leisure-time activities. Working parents, paucity of play areas, heavy traffic, and concentration of population were crucial factors in spurring the school to action. Although the school provides the space and some of the leadership for the program, the project has been adopted by the entire community and the local community council is responsible for keeping the program operating smoothly.

Throughout their discussion, the teachers on the panel revealed that there had been a constant search for new, more effective ways of meeting persistent problems in safety education. Their efforts in this direction would seem to be the best guarantee that safety education will function in the lives of the boys and girls who come under their guidance.

OLIVE EWAN is the supervisor for primary grades in the public school system at Cincinnati, Ohio.

## Detroit Teaches Pupils

(from page 3)

limit the group size to eight. One hundred and twenty to one hundred fifty is about the maximum number of pupils per year per instructor in the dual-control, on-the-street plan.

Assuming, in terms of round numbers, that there are five hundred pupils per year in a high school who want to take driver education, and that an instructor's salary is \$5,000 a year. One instructor, using Detroit's multiple-car plan on an off-street driving facility, could teach the five hundred pupils at an instructional cost of ten dollars each.

2. Various makes of cars are used. Pupils thus become familiar with more than one manufacturer's car.

3. Traffic complexity can be controlled and varied to meet the instructional needs of the pupil. The problem of unanticipated actions by passing motorists, encountered in dual-control, on-the-street practice, is eliminated during the early stages of the pupil's developing skill. Normal traffic congestion is simulated during the later periods of instruction. At one school we offer two periods of on-the-street instruction

so pupils will have had experience in regular traffic.

4. There is more behind-the-wheel time per pupil. Despite the appreciable reduction in costs, pupils' behind-the-wheel time has been doubled.

5. The instructor can spend more time with problem pupils while those more proficient continue their practice. Pupils who demonstrate the need may repeat the course. No failure mark is given in such instances.

Mention has not been made, previously, of Detroit's classroom instruction in driver education only because this article is concerned, primarily, with the behind-the-wheel aspect of driver education. Actually, the chief objective in driver education is concerned with driver-attitude and with traffic laws. The attainment of these objectives is largely attempted in classroom instruction. The manipulative aspects of driver education—the behind-the-wheel work—are largely motivational from the education point of view. Any fool can learn to manipulate car controls and I am sure that too many do.

Detroit does not skimp on classroom work just because we are able to give more time than is customary to behind-the-wheel training.

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## TRADE PUBLICATIONS

The following publications are intended for the guidance of those responsible for the purchase of equipment to promote safety in the school. The coupon below will bring FREE to responsible school personnel any or all of those listed.

1. **Planning Your Playground:** Booklet reviews the playground situation and gives points on care, planning and selection of types of apparatus for better playgrounds. J. E. Burke Co.
2. **Reduce Playground Injuries with Parafall:** Brochure describes "Parafall" a cushioning material developed for playground areas. Helps prevent severe injuries caused by falls on unyielding surfaces. Southern Chemicals, Inc.
3. **Teaching Traffic Safety:** Brochure with illustrations describes a demonstration board designed for driver and safety classes. Magnetized model cars and traffic signs enable the instructor to utilize the board in a vertical position. Magno-Saf-T Board.
4. **"Mr. Higby Learned About Floor Safety":** Booklet discusses maintenance in institutional buildings. Cleaning methods and specific treatment for each type floor discussed together with non-skid polishes for safety. Walter G. Legge Co., Inc.
5. **School Patrol Equipment:** New circular describes and illustrates a complete line of safety patrol equipment. Shown are: Sam Browne belts, arm bands, badges, safety and school buttons, patrol boy raincoats and helmet sets, etc. American Badge Co.
6. **Playground and Gym Equipment:** Catalog illustrates company's complete line of slides, swings, merry-go-rounds, see-saws, football goal posts, score boards, and bleachers. Construction materials are solid stainless steel, and zinc-coated steel. Game-Time, Inc.
7. **School Crossing Signal:** Pamphlet illustrating pedestrian operated double headed safety signal light for controlling traffic at school crossings. A 4-way traffic cycle with push button control. Crown Signals, Inc.

SAFETY EDUCATION

APRIL, 1953

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## CAN Improve Skills

(from page 13)

Course, and includes eighteen hours of instruction given in evening sessions.

**Accident Repeaters.** Commercial fleets are leading the way in the retraining of repeaters. After drivers have had accidents, they are brought in for hearings, often followed by re-training. If states could do the same for passenger-car accident repeaters, the cost would be more than justified. Connecticut and New Jersey, with their point system for repeaters and violators, call offenders in for hearings and clinical tests, and are leading the way among the states in attempting to rehabilitate chronic offenders.

Insofar as public school driver training for adults is concerned, San Francisco has had a program in operation since 1948, in which more than six thousand adults have been enrolled.

In New York state there are more than a hundred courses in both rural and urban communities, while the number of schools in Pennsylvania offering such courses is growing each year. Again, it is necessary to point out that these courses taught by instructors who may already be carrying a full load in high schools.

With regard to school bus drivers, there is abundant evidence from states that the training of these drivers is a good investment. The accident record for trained drivers is better than that for untrained. This may be one reason why in North Carolina where busses are driven by high school students, the accident record is good; these drivers are well trained by the staff of the highway safety division.

All these programs and others have shown that old driving habits can be improved and new skills learned by adults from all walks of life. Actually, however, only a small start has been made; there is a tremendous backlog of drivers to be re-educated. In addition, there is a shortage of instructors and facilities.

Finally, on both scores, public inertia is still a major factor. What is needed in every state, in every community, is a coordinated program to develop, publicize, and expand acceptable driver education programs. The Center for Safety Education has developed a sixteen page pamphlet which explains the various types of adult programs. Already 10,000 copies have been sent out to states and cities across the country. There can be no doubt that during the next few years there will be a significant growth in the adult training activities described.



# 60

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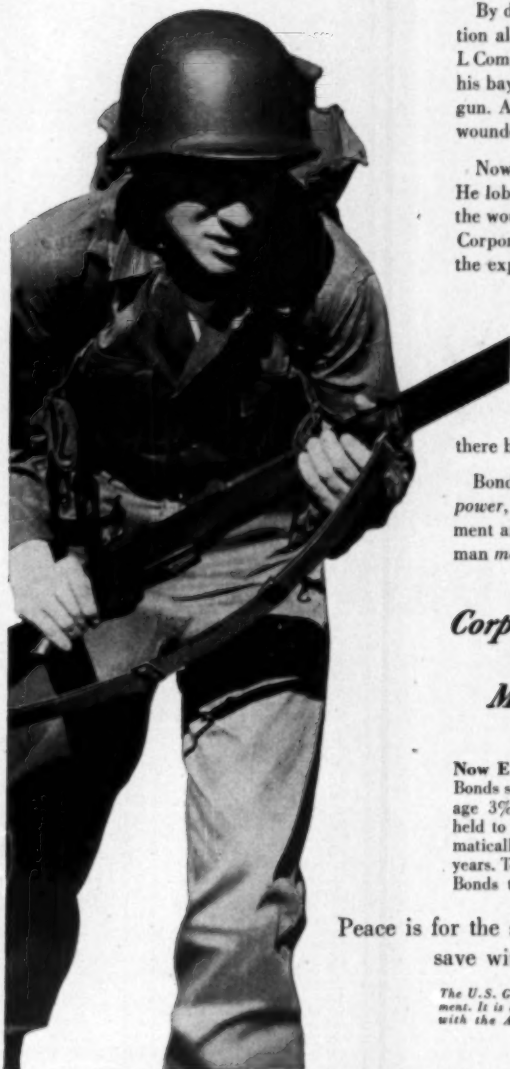
## **SAFETY EDUCATION DATA SHEETS**

- |  |   |
|--|---|
| (1) Bicycles                             | (31) Night Driving                                  |
| (2) Matches                              | (32) Winter Sports                                  |
| (3) Firearms (Rev.)                      | (33) Traffic Control Devices                        |
| (4) Toys and Play Equipment              | (34) Safe Conduct in Electrical Storms              |
| (5) Falls                                | (35) Poisonous Reptiles                             |
| (6) Cutting Implements                   | (36) Motor-Driven Cycles                            |
| (7) Lifting, Carrying and Lowering       | (37) Animals in the Classroom                       |
| (8) Poisonous Plants                     | (38) Railroad Trespassing                           |
| (9) Electric Equipment                   | (39) Bad Weather: hazards, precautions, results     |
| (10) Pedestrian Safety                   | (40) School Parties                                 |
| (11) School Buses                        | (41) Home Workshops                                 |
| (12) Flammable Liquids in the Home       | (42) Horseback Riding                               |
| (13) Passenger Safety in Public Carriers | (43) Hiking and Climbing                            |
| (14) Chemicals                           | (44) Hook and Line Fishing                          |
| (15) Hand Tools                          | (45) Summer Jobs—Farm                               |
| (16) Nonelectric Household Equipment     | (46) Safety in the Woodshop                         |
| (17) Sidewalk Vehicles                   | (47) School Fires                                   |
| (18) Camping                             | (48) Unauthorized Play Spaces                       |
| (19) Alcohol and Traffic Accidents       | (49) Bathroom Hazards                               |
| (20) Cooking and Illuminating Gas        | (50) Safety in the General Metals Shop              |
| (21) Solid and Liquid Poisons            | (51) Safety in Pupil Excursions                     |
| (22) Safety in the Gymnasium             | (52) Highway Driving: rules, precautions            |
| (23) Laboratory Glassware                | (53) Safety in the Machine Shop                     |
| (24) Places of Public Assembly           | (54) Summer Jobs                                    |
| (25) Fireworks and Blasting Caps         | (55) Motor Vehicle SPEED                            |
| (26) Domestic Animals                    | (56) Welding and Cutting Safely                     |
| (27) Swimming                            | (57) Safety in the Auto Shop                        |
| (28) Small Craft                         | (58) Winter Walking                                 |
| (29) Play Areas                          | (59) Safety in the High School Chemistry Laboratory |
| (30) Winter Driving                      | (60) Safety in the Farm Mechanics Shop              |

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## He Went Out to Meet Them



**W**ITH FLARES AND WHISTLES and blaring bugles, the Reds had been attacking fanatically all night. Wave after wave they came, in overwhelming numbers.

By dawn, Jerry Crump could see that his position alone was keeping them from overrunning L Company. Twice he went out to meet them with his bayonet. Once he retook a captured machine gun. And four times he left shelter to bring in wounded comrades.

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